

CLAIM AMENDMENTS

IN THE CLAIMS

This listing of the claims will replace all prior versions, and listing, of claims in the application or previous response to office action:

1. (Currently Amended) A method for synchronized high frequency communication of ~~information~~ data between a first station having a first modem and a second station having a second modem, comprising the steps of:

synchronizing the communication using an external reference signal derived from a double sideband residual carrier signal not transmitted for the purpose of providing synchronization;

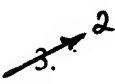
wherein the synchronizing step is performed by using a filter and phase locked loop to recover the carrier signal and mixing the recovered carrier signal with a frequency offset;

establishing a selected communications channel between the first modem and the second modem; and

wherein the step of establishing a communications channel between the first modem and the second modem is performed by scanning a plurality of channels including the selected communications channel, and selecting the selected communications channel using the results of a Link Quality Analysis (LQA) to compare the plurality of channels;

communicating the information over the selected communications channel using coherent modulation ~~synchronized by an external frequency reference~~ without using a modem training interval.

2. (Cancelled)

 3. (Previously Presented) The method of Claim 1, wherein the LQA is conducted according to the requirements of MIL-STD-188-141A.

4.-8. (Cancelled)

~~9.~~³ (Currently Amended) The method of Claim 1, wherein the external frequency reference signal is ~~derived from~~ an amplitude modulated broadcast signal.

~~10.~~⁷ (Currently Amended) A system for receiving and decoding a high frequency communications signal synchronized communication of information without using a training interval, comprising:

~~a first station having a first modem;~~

~~a second station having a second modem; and~~

synchronization circuitry for receiving an external reference signal derived from a double sideband residual carrier signal not transmitted for the purpose of providing synchronization;

wherein the synchronization circuitry has at least gain control circuitry, a phase locked loop, and a frequency offset generator;

an automatic link establishment (ALE) controller

~~a means for establishing a selected communications channel between the first modem and the second modem, wherein the information is communicated between the first and second modems using coherent modulation synchronized by an the external frequency reference signal~~ without using the modem training interval; and

~~wherein the means for establishing a communications channel between the first modem and the second modem comprises: a means for scanning~~ ALE controller is further operable to scan a plurality of channels including the selected communications channel; and a means for selecting to select the selected communications channel using the results of a Link Quality Analysis (LQA) to compare the plurality of channels; and

data detection circuitry for receiving a high frequency communications signal and for using the synchronization signal to decode data in the communications signal.

11. (Cancelled)

~~12.~~⁸ (Previously Presented) The system of Claim ~~10~~⁷, wherein the LQA is conducted according to the requirements of MIL-STD-188.

13.-17. (Cancelled)

~~18.~~⁹ (Currently Amended) The system of Claim ~~10~~⁷, wherein the external frequency reference signal is derived from an amplitude modulated broadcast signal.

19.-28. (Cancelled)

~~29.~~¹⁰ (New) The system of Claim ~~10~~⁷, wherein the data detection circuitry uses PSK detection.

~~30.~~⁴ (New) The method of Claim 1, wherein the external reference signal is a broadcast television signal.

~~31.~~¹¹ (New) The system of Claim ~~10~~⁷, wherein the external reference signal is a broadcast television signal.

~~32.~~⁵ (New) The method of Claim 1, wherein the offset is obtained by multiplying or dividing the frequency of the reference signal.

~~33.~~¹² (New) The system of Claim ~~10~~⁷, wherein the frequency offset generator is operable to multiply or divide the carrier frequency.

~~34.~~⁶ (New) The method of Claim 1, wherein the external reference signal is used to establish a center frequency for the high frequency communication, to synchronize the data in time, and to provide a carrier for coherent detection of the data;